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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/602,420	06/23/2003	Tomohiko Kikuchi	WISEL 20.401	1990
26304	7590	12/29/2005	EXAMINER	
KATTEN MUCHIN ROSENMAN LLP			DANIELSEN, NATHAN ANDREW	
575 MADISON AVENUE			ART UNIT	
NEW YORK, NY 10022-2585			PAPER NUMBER	
			2652	
DATE MAILED: 12/29/2005				

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/602,420	KIKUCHI, TOMOHIKO	
	Examiner	Art Unit	
	Nathan Danielsen	2652	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 23 June 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-5 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-5 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 23 June 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|-----------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

Priority

2. Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

Oath/Declaration

It does not identify the citizenship of each inventor.

3. The oath or declaration is defective. A new oath or declaration in compliance with 37 CFR 1.67(a) identifying this application by application number and filing date is required. See MPEP §§ 602.01 and 602.02.

The oath or declaration is defective because:
It does not identify the citizenship of each inventor.

Specification

4. Applicant is reminded of the proper language and format for an abstract of the disclosure.

The abstract should be in narrative form and generally limited to a single paragraph on a separate sheet within the range of 50 to 150 words. It is important that the abstract not exceed 150 words in length since the space provided for the abstract on the computer tape used by the printer is limited. The form and legal phraseology often used in patent claims, such as "means" and "said," should be avoided. The abstract should describe the disclosure sufficiently to assist readers in deciding whether there is a need for consulting the full patent text for details.

The language should be clear and concise and should not repeat information given in the title. It should avoid using phrases which can be implied, such as, "The disclosure concerns," "The disclosure defined by this invention," "The disclosure describes," etc.

Claim Objections

5. Claim 1 is objected to because the phrase "the reproducing speed signal and reproducing direction signal" lacks antecedent basis in the claim. The examiner suggests that this phrase be changed to --a reproducing speed signal and a reproducing direction signal--.

Claim 2 is objected to because the phrase "the rotary shaft" lacks antecedent basis in the claims. The examiner suggests that this phrase be changed to --a rotary shaft--. Appropriate correction is required.

Claim Rejections - 35 USC § 112

6. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

7. Claims 4 and 5 are rejected under 35 U.S.C.112, second paragraph.

Regarding claim 4, the phrase "or a disk similar thereto" renders the claim(s) indefinite because the claim(s) include(s) elements not actually disclosed (those encompassed by "or a disk similar thereto"), thereby rendering the scope of the claim(s) unascertainable. See MPEP § 2173.05(d).

Regarding claim 5, the claimed rotation detecting apparatus being "further equipped with at least switching means" is indefinite since the disclosure fails to articulate any other structure besides "switching means" for transmitting/interrupting signals. Thus the scope of the claim in light of the disclosure as a whole cannot be readily ascertained.

Claim Rejections - 35 USC § 103

8. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the

Art Unit: 2652

invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

9. Claims 1 and 2 are rejected under 35 U.S.C. 103(a) as being unpatentable over Liu (US Patent 6,961,289) in view of Segers, Jr. (hereinafter Segers) (US Patent 6,541,690).

Regarding claim 1, Liu discloses a digital audio data reproducing system comprising:

a digital audio data reproducing apparatus (digital audio signal player) including a

recording medium (turntable 112 is provided for holding an analogue CD (col. 1, line 41 and figure 1)) in which digital audio data are stored (inherent in the analogue CD as shown by the well-known high frequency amplifier 13 and CD digital processor 14 in figure 1), detection means (laser pick-up 114 in figure 1) for detecting the digital audio data stored in said recording medium and a processing section (digital audio signal processor 15 in figure 1) for reproducing said digital audio data in accordance with the reproducing speed signal and reproducing direction signal which are supplied from the outside (signals output from turntable control element 16 to light sensitive device 164 and analog/digital converter 32 as shown in figure 4) to said detection means.

However, Liu fails to disclose where the digital audio data reproducing system comprises:

an analog player including a turntable for an analog record or a disk similar thereto and rotation driving means for said turntable; and

a rotation detecting apparatus mounted onto said analog record player for detecting both the speed of revolution and the sense of rotation for either said turntable or said analog record or a disk similar thereto, which is rotated by said turntable, and for supplying said reproducing speed signal and said reproducing direction signal to said digital audio data reproducing apparatus, after determining said reproducing

Art Unit: 2652

speed signal and said reproducing direction signal from the detection signals for the speed of revolution and the sense of rotation.

In the same field of endeavor, Segers discloses where the digital audio data reproducing system comprises:

an analog player including a turntable (circular platter 104 in figure 1) for an analog record or a disk similar thereto (encoder disc 112 in figure 1) and rotation driving means for said turntable ("a motor 102 is attached to a circular platter 104 by a shaft 106" (col. 3, lines 65-66 and figure 1)); and

a rotation detecting apparatus (optical pickup 116 in figure 12) mounted onto said analog record player for detecting both the speed of revolution and the sense of rotation ("an optical pick-up 116 is provided to receive velocity and direction information from encoding disc 112" (col. 4, lines 33-34 and figure 1)) for either said turntable or said analog record or a disk similar thereto, which is rotated by said turntable (inherent in analog record players), and for supplying said reproducing speed signal and said reproducing direction signal to said digital audio data reproducing apparatus, after determining said reproducing speed signal and said reproducing direction signal from the detection signals for the speed of revolution and the sense of rotation (a cable 118 is connected to optical pick-up 116 to provide power to the illuminator and to carry the output signal from the receptor to the external electronics" (col. 4, lines 45-48 and figure 1)).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have provided an analog player and a rotation detecting apparatus mounted thereon, as taught by Segers, for the purpose of creating scratch effects in a digitized

Art Unit: 2652

musical signal by providing a rotary encoder having the physical characteristics of a vinyl phonograph disc (col.3, lines 27-32).

Regarding claim 2, Liu discloses everything claimed as applied to claim 1. However, Liu fails to disclose where said rotation detection apparatus comprises:

a rotation body which is rotated by either said turntable or said analog record or a disk similar thereto in contact therewith; and

a rotary encoder including an encoder disk connected to the rotary shaft of said rotation body and a photoelectric detector for sensing said encoder disk.

In the same field of endeavor, Segers discloses where said rotation detection apparatus comprises:

a rotation body (encoding disc 112) which is rotated by either said turntable or said analog record or a disk similar thereto in contact therewith (an encoding disc 112 is placed atop slip disc 110, which is placed on the top surface of platter 104 (col. 4, lines 15-18 and figure 1)); and

a rotary encoder (encoder disc 112 and optical pick-up 116 in figure 1) including an encoder disk (encoder disc 112 in figures 1 and 2) connected to the rotary shaft of said rotation body (illustrated by the upper end of shaft 106 in figure 1) and a photoelectric detector for sensing said encoder disk (optical pick-up 116 in figure 1).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have provided a rotary encoder for detecting record velocity signals, as taught by Segers, for the purpose stated in claim 1.

Art Unit: 2652

10. Claim 3 is rejected under 35 U.S.C. 103(a) as being unpatentable over Liu in view of Segers as applied to claims 1 and 2 above, and further in view of Borieux (PCT Application WO 00/21090) as orally translated by the USPTO's translation department.

Regarding claim 3, Liu, in view of Segers, disclose everything claimed as applied to claims 1 and 2. However, Liu, in view of Segers, fails to disclose where said rotation detecting apparatus further comprises supporting means for changing said rotation body and said rotary encoder from a first position at which said rotation body and said rotary encoder is in contact with said analog record or a disk similar thereto to a second position at which said rotation body and said rotary encoder is away from said analog record or a disk similar thereto and vice versa by the operation of an operator.

In the same field of endeavor, Borieux discloses where said rotation detecting apparatus further comprises supporting means for changing said rotation body and said rotary encoder from a first position at which said rotation body and said rotary encoder is in contact with said analog record or a disk similar thereto to a second position at which said rotation body and said rotary encoder is away from said analog record or a disk similar thereto and vice versa by the operation of an operator (inherent in the arrangement of the components in figures 4a, 4b, and 4c and suggested on page 40, ¶ 1 (lines 3-16) in that the record disc D can be swapped out for a different disc as desired by the operator).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have made the velocity detection means movable, as taught by Borieux, for the purpose of being able change the disc being used.

11. Claims 4 and 5 are rejected under 35 U.S.C. 103(a) as being unpatentable over Liu in view of Segers as applied to claim 1 above, and further in view of Heeger et al. (hereinafter Heeger) (US Patent 4,980,762).

Regarding claim 4, Liu, in view of Segers, disclose everything claimed as applied to claim 1. However, Liu, in view of Segers, fails to disclose where said rotation detecting apparatus comprises:

- an image sensor for reading the surface of said analog record or a disk similar thereto as image data; and
- a processing unit for determining said reproducing speed signal and said reproducing direction signal to be output on the basis of said image data supplied from said image sensor.

In the same field of endeavor, Heeger discloses where said rotation detecting apparatus comprises:

- an image sensor (inherent in the image processing system shown in figure 3) for reading the surface of said analog record or a disk similar thereto (an object (col. 4, line 5)) as image data (two dimensional images (col. 4, line 1)); and
- a processing unit (image processing system shown in figure 3) for determining said reproducing speed signal and said reproducing direction signal to be output on the basis of said image data supplied from said image sensor ("given a sequence of images of rigid body motion of an object, the image processing system of the preferred embodiment can extract the direction of translational velocity of the object, and it can also extract the rotational velocity of the object from the image sequence." (col. 4, lines 4-9)).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have used an image processing system to determine the rotational velocity of a analog record, as taught by Heeger, for the purpose of determining a direction of translational velocity of an object from a sequence of images (col. 1, line 34-37))

Art Unit: 2652

Regarding claim 5, Liu discloses where said rotation detecting apparatus is further equipped with at least switch means for transmitting/interrupting said reproducing speed signal and said reproducing direction signal to said digital audio data reproducing apparatus by the operation of an operator at the output of said processing unit in said rotation detecting apparatus (in col. 4, line 51 through col. 5, line 9, Liu discloses how the operator's hands become the pole of a switch such that the operator's contact with his turntable control element causes the scratch effect to be processed and such that when the operator's hand ceases to be in contact with the turntable control element, normal CD playback resumes).


Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Nathan Danielsen whose telephone number is (571) 272-4248. The examiner can normally be reached on Monday-Friday, 8:30 AM - 4:30 PM EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, A.L. Wellington can be reached on (571) 272-4483. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Nathan Danielsen
12/07/05


WILLIAM KLIMOWICZ
PRIMARY EXAMINER